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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,851	12/07/2001	Noriyoshi Nishiyama	2001-1576	8308

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WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

MULLINS, BURTON S

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/004,851	NISHIYAMA ET AL.	
	Examiner	Art Unit	
	Burton S. Mullins	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The inclusion in claim 1 of recitation "along a plane that does not extend transverse to the axis of rotation" is new matter because this includes, for example, planes that are tilted with respect to the axis of rotation (but not transverse thereto). Such an interpretation has no support in the specification as originally filed, which only discloses transverse separation planes or separation planes parallel to the axis.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 4,480,207) in view of Nishiyama et al. (US 6,049,153). Miller teaches a permanent magnet motor comprising: a rotor 25 having an axis of rotation (Fig.1) and also having a first interior permanent magnet 33 including at least two magnet pieces (c.3, line 66-c.4, line 1) separated from one another along a plane that does not extend transverse to the axis of rotation by an electrical insulator comprising epoxy (the plural magnet pieces are epoxied together). A stator is inherent in Miller; however, Miller does not teach stator having teeth wound by concentrated windings.

Nishiyama, meanwhile, teaches a permanent magnet rotor motor suitable for electric vehicles (c.2, line 14) having concentrated windings which aid in manufacture (c.4, lines 46-65).

It would have been obvious to one having ordinary skill in the art to modify Miller and provide concentrated stator windings per Nishiyama for the purpose of aiding manufacture of the motor.

Regarding claim 3, Miller's first interior permanent magnet comprising plural magnets separated by epoxy forms a N pole facing the stator (upper left hand pole, Fig.1). A second interior permanent magnet comprising plural magnets separated by epoxy forms a S pole facing the stator (lower left hand pole, Fig.1).

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6. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller and Nishiyama as applied to claim 1 above, and further in view of Fukuno et al. (US 5,641,363).

Miller and Nishiyama do not teach sintered magnets, per se.

Fukuno teaches the manufacture of rare earth sintered magnets having closed void characteristics which minimizes shrinkage and corrosion (c.5, lines 31-53).

It would have been obvious to one having ordinary skill in the art to modify Miller and Nishiyama and provide rare earth sintered magnets per Fukuno to minimize shrinkage and corrosion.

Regarding claim 8, see the discussion of Miller with regard to the rejection of claim 3, above.

Regarding claim 9, see the discussion of Miller with regard to the rejection of claim 3, above.

7. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller and Nishiyama as applied to claim 1 above, and further in view of Shibukawa (US 5,936,323). Miller and Nishiyama teach a permanent magnet motor for driving a vehicle, but do not teach a battery.

Shibukawa teaches a permanent magnet motor for an electric vehicle including a battery serving as the electric vehicle power supply (c.4, lines 19-20).

It would be obvious to modify Miller and Nishiyama and provide a battery per Shibukawa since this would have been desirable as a power supply.

Regarding claim 13, Miller teaches an epoxy insulator between the magnets (c.3, line 66-c.4, line 1).

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Regarding claim 14, see the discussion of Miller with regard to the rejection of claim 3, above.

8. Claims 1 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 5,929,547) in view of Nishiyama et al. (US 6,049,153). Kim teaches a permanent magnet motor comprising: a rotor 30 having an axis of rotation (Fig.7) and also having a first interior permanent magnet including at least two magnet pieces 76 and 77 (Fig.8) separated from one another along a plane that does not extend transverse to the axis of rotation by an electrical insulator comprising an air gap (protruded parts 75 separate the magnet pieces, c.4, lines 21-25). Kim further teaches a stator 51 with teeth; however, Kim does not teach concentrated windings on the teeth.

Nishiyama, meanwhile, teaches a permanent magnet rotor motor suitable for electric vehicles (c.2, line 14) having concentrated windings which aid in manufacture (c.4, lines 46-65).

It would have been obvious to one having ordinary skill in the art to modify Kim and provide concentrated stator windings per Nishiyama for the purpose of aiding manufacture of the motor.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438,

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164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-11 and 17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,340,857.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the '857 patent claims magnet pieces separated from one another "in the direction of the axis of rotation" which would include "along a plane that does not extend transverse to the axis of rotation" as claimed in the application.

Regarding claim 2, claim 3 of the patent teaches epoxy resin.

Regarding claim 3, see claim 3 of the patent.

Regarding claims 4-6, see the identical language in claims 1 and 4 of the patent.

Regarding claims 7-9, see the identical language in claim 3 of the patent.

Regarding claims 10-11, see claim 4 of the patent.

Regarding claim 17, see claim 2 of the patent.

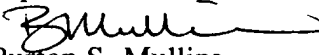
Allowable Subject Matter

11. Claims 15-16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 305-7063. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 305-1341 for regular communications and 305-1341 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.


Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
July 22, 2003